

## DESCRIPTION

WOUND ADHESIVE TAPE5 TECHNICAL FIELD

The present invention relates to an adhesive tape and, in particular, to a wound adhesive tape which is convenient for carrying and using and is excellent in a storage efficiency and a transport efficiency.

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BACKGROUND ART

Conventionally, an adhesive tape is wound around a ring like core made of paper or plastic and is formed like a doughnut and is then packaged with a packaging material and is supplied to a market.

However, such an adhesive tape formed like a doughnut has a large cylindrical space inside itself and hence is not convenient for carrying and is low in storage efficiency and a transport efficiency in terms of thickness and size to thereby present problems in these points.

For this reason, in order to solve these problems, a wound adhesive tape characterized in that an adhesive tape is wound around the outer peripheral surface of a ring like core formed in "a nearly flat shape" and having a relatively thin thickness with an adhesive surface inside is disclosed in Japanese Utility Model Laid- Open No. 51-148383, Japanese Utility Model Laid- Open No. 4- 123233, and USP No. 5269421. Here, a phrase of "a nearly flat shape" means a shape formed when a cylindrical body is crushed in the direction perpendicular to the axis of the cylinder body.

A core made of paper, plastic, or metal and formed in a nearly flat shape is used as the above mentioned wound adhesive tape. The core needs to have some degree of strength because an adhesive tape is wound around its outer peripheral surface with an adhesive surface inside usually more than 5 m. Accordingly, the core needs to be manufactured into a strong ring like body formed in a

nearly flat shape with the above mentioned material having a thickness of 1 mm or more, which results in increasing a manufacturing cost and the price of the wound adhesive tape.

5 Also, the wound adhesive tape presents a problem in usability that it is difficult to rewind the wound adhesive tape because the core formed in a nearly flat shape is stiff and the space inside the core is too narrow for a finger to be inserted.

10 It is the object of the present invention to solve the problems that the above conventional technologies have and to provide at a low price a wound adhesive tape which is convenient for carrying and using and is excellent in a storage efficiency and a transport efficiency.

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#### DISCLOSURE OF INVENTION

The present invention solves the above mentioned problems, as claimed in claim 1, by a wound adhesive tape comprising a ring like body made of a sheet like material  
20 having a thickness of 10  $\mu\text{m}$  to 100  $\mu\text{m}$  and formed in a nearly flat shape, and an adhesive tape wound around the outer peripheral surface of the ring like body with an adhesive surface inside.

Further, the present invention solves the above  
25 mentioned problems, as claimed in claim 2, by a wound adhesive tape in which the above mentioned sheet like material is a material using at least one of a paper sheet, a plastic film, or a metal foil.

Still further, the present invention solves the above  
30 mentioned problems, as claimed in claim 3, by a wound adhesive tape in which the ring like body formed in a nearly flat shape has something printed on the inner peripheral surface thereof.

#### 35 BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view showing the constitution of a wound adhesive tape in accordance with the present invention.

FIG. 2 is a perspective view showing a state in a

process of manufacturing a wound adhesive tape in accordance with the present invention.

#### BEST MODE FOR CARRYING OUT THE INVENTION

5           FIG. 1 is a perspective view showing the constitution of a wound adhesive tape in accordance with the present invention. In FIG. 1, a reference number 2 designates a ring like body formed in a nearly flat shape, the ring like body being made by forming a printed paper in a ring  
10 with the printed surface of the printed paper inside and with parts of the printed paper overlaid on each other. An adhesive tape 1 is wound around the outer peripheral surface of the printed paper formed in such a shape with an adhesive surface inside to thereby constitute a wound  
15 adhesive tape 4 in accordance with the present invention.

A method of manufacturing a wound adhesive tape in accordance with the present invention will be specifically described with reference to the following specific embodiment.

#### 20 (Preferred Embodiment)

FIG. 2 is a perspective view showing a state in a process of manufacturing a wound adhesive tape in accordance with the present invention.

A printed paper having the name of a maker or the  
25 like on one surface thereof and having a thickness of 70  $\mu$  m was wound around the outer peripheral surface of a ring-like core 3 made of a plastic plate having a width of 50 mm, a length of 80 mm, and a thickness of 2 mm and formed in a nearly flat shape with the printed surface inside and  
30 with parts of the printed paper overlaid on each other to thereby constitute a ring-like body 2 formed in a nearly flat shape. Further, around the outer peripheral surface of the ring like body 2 formed in a nearly flat shape was wound an adhesive tape 1 having a length of 5 m with an  
35 adhesive surface inside. Then, the above ring like core 3 is removed to make a wound adhesive tape 4 (see FIG. 1).

While a printed paper having a thickness of 70  $\mu$ m was wound around the outer peripheral surface of the ring like core 3 to make the ring like body 2 in the present

preferred embodiment, it is preferable that a sheet like material wound around the outer peripheral surface of the ring like core 3 is a paper sheet, a plastic film, or a metal foil having a thickness of 10  $\mu\text{m}$  to 100  $\mu\text{m}$ . Also, it is recommended that a laminate of these materials be used. If the thickness of the sheet like material is smaller than 10 $\mu\text{m}$ , the mechanical strength of the sheet like material is not sufficient and if the thickness of the sheet like material is larger than 100  $\mu\text{m}$ , the stiffness of the sheet like material becomes high, which makes it difficult to wind the sheet like material around the ring like core 3.

A wound adhesive tape 4 in accordance with the present invention, as shown in FIG. 1, does not have the above mentioned ring like core 3 and comprises an adhesive tape 1 directly wound around the outer peripheral surface of the ring like body 2 made of the above mentioned printed paper. Therefore, the wound adhesive tape 4 in accordance with the present invention is manufactured at a low cost and is easy to rewind and is excellent in usability because when the wound adhesive tape 4 is rewound, the ring like body 2 made of the printed paper is flexible and is easily deformed and hence a finger can be inserted inside the ring like body 2 by deforming the ring like body 2.

Further, the wound adhesive tape 4 in accordance with the present invention is made of a printed paper wound with the printed surface inside and hence the name of a maker or the like can be printed thereon.

Still further, the wound adhesive tape 4 in accordance with the present invention, as shown in FIG. 1, is small in size and is formed in a nearly flat shape like a nearly rectangular plate and, therefore, is convenient for carrying and is also excellent in a storage efficiency and a transport efficiency.

#### INDUSTRIAL APPLICABILITY

As described up to this point, putting the present invention into practice makes it possible to provide at a

low price a wound adhesive tape which is convenient for carrying and using and is excellent in a storage efficiency and a transport efficiency.

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